ANNALS OF EPIDEMIOLOGY

VOLUME 7

FEDERAL SCENE

1 **NIH Reinvention Activities: Status Report**
C. James Scheirer, PhD, and Ronald G. Geller, PhD

ORIGINAL REPORTS

3 **Associations between Candidate Loci Angiotensin-Converting Enzyme and Angiotensinogen with Coronary Heart Disease and Myocardial Infarction: The NHLBI Family Heart Study**
E. H. Ludwig, BS, I. B. Borecki, PhD, R. C. Ellison, MD, A. R. Folsom, MD, G. Heiss, MD, M. Higgins, MD, J. M. Lalouel, MD, DSc, M. A. Province, PhD, and D. C. Rao, PhD

13 **Associations of Candidate Loci Angiotensinogen and Angiotensin-Converting Enzyme with Severe Hypertension: The NHLBI Family Heart Study**
I. B. Borecki, PhD, M. A. Province, PhD, E. H. Ludwig, BS, R. C. Ellison, MD, A. R. Folsom, MD, G. Heiss, MD, J. M. Lalouel, MD, DSc, M. Higgins, MD, and D. C. Rao, PhD

22 **Lifestyle, Education, and Prevalence of Hypertension in Populations of African Origin: Results from the International Collaborative Study on Hypertension in Blacks**
Jay S. Kaufman, PhD, Julie A. Tracy, BA, Ramón A. Durazo-Arvizu, PhD, and Richard S. Cooper, MD, for the ICSHIB Investigators

28 **A Probability-Based Approach for Predicting HIV Infection in a Low Prevalent Population of Injection Drug Users**
Fenny K. Cheng, PhD, Wesley L. Ford, MA, MPH, Mark D. Weber, PhD, Shiu-Yuen Cheng, PhD, and Peter R. Kerndt, MD, MPH

35 **Geographic Trends in Prostate Cancer Mortality: An Application of Spatial Smoothers and the Need for Adjustment**
Karen Kafadar, PhD

46 **Exercise, Occupational Activity, and Risk of Endometrial Cancer**
Sara H. Olson, PhD, John E. Vena, PhD, Joan P. Dorn, PhD, James R. Marshall, PhD, Maria Zielezny, PhD, Rosemary Laughlin, PhD, and Saxon Graham, PhD

54 **Physical Activity, Functional Limitations, and the Risk of Fall-Related Fractures in Community-Dwelling Elderly**
Judy A. Stevens, MS, MPH, Kenneth E. Powell, MD, MPH, Suzanne M. Smith, MD, MPH, Phyllis A. Wingo, PhD, MS, and Richard W. Sattin, MD

62 **Iron Status and Risk of Cardiovascular Disease**
Maria-Chiara Corti, MD, MHS, J. Michael Gaziano, MD, MPH, and Charles H. Hennekens, MD, DrPH

69 **Physical Activity Protects against Coronary Death and Deaths from All Causes in Middle-Aged Men: Evidence from a 20-Year Follow-up of the Primary Prevention Study in Göteborg**
Annika Rosengren, MD, and Lars Wilhelmsen, MD

76 **LETTER TO THE EDITOR**

78 **Announcement**

EDITORIAL

79 **Correlates of Leptin Concentration in the San Antonio Heart Study**
Tim R. Nagy, PhD, and Barbara A. Gower, PhD

(continued)

© 1997 Elsevier Science Inc. All rights reserved.
655 Avenue of the Americas, New York, NY 10010

1047–2797/97/$17.00
PII S1047–2797(97)00191-9

ORIGINAL REPORTS

81 **Serum Leptin Levels in Mexican Americans and Non-Hispanic Whites: Association with Body Mass Index and Cigarette Smoking**
Ming Wei, MD, Michael P. Stern, MD, and Steven M. Haffner, MD

87 **Relation of Prescription Nonsteroidal Antiinflammatory Drug Use to Cognitive Function among Community-Dwelling Elderly**
Joseph T. Hanlon, PharmD, Kenneth E. Schmader, MD, Lawrence R. Landerman, PhD, Ronnie D. Horner, PhD, Gerda G. Fillenbaum, PhD, Carl F. Pieper, DrPH, William E. Wall, Jr., BA, Michael J. Koronkowski, PharmD, and Harvey Jay Cohen, MD

95 **Environmental and Occupational Determinants of Blood Pressure in Rural Communities in China**
Xiping Xu, MD, PhD, Tianhua Niu, BS, David C. Christiani, MD, MPH, MS, Scott T. Weiss, MD, Yusheng Zhou, MD, Changzhong Chen, MD, Jianhua Yang, MD, Zhian Fang, MD, Zhujiu Jiang, MD, Wannian Liang, MD, and Fangzhen Zhang, MD

107 **Employment Status and High Blood Pressure in Women: Variations by Time and by Sociodemographic Characteristics**
Kathryn M. Rose, PhD, Beth Newman, PhD, Trude Bennett, DrPH, and Herman A. Tyroler, MD

115 **Changes over Time in Blood Lipids and Their Correlates in Polish Rural and Urban Populations: The Poland–United States Collaborative Study in Cardiopulmonary Disease Epidemiology**
Andrzej Pajak, MD, O. Dale Williams, PhD, Grazyna Broda, MD, Ewa Baczynska, MSC, Stefan Rywik MD, C. E. Davis, PhD, Ewa Kawalec, MSC, Ewa Chodkowska, PhD, Sandra Irving, MES, and Teri Manolio, MD

125 **Lung Cancer Mortality after 16 Years in MRFIT Participants in Intervention and Usual-Care Groups**
B. Jessica Shaten, MS, Lewis H. Kuller, MD, DPH, Marcus O. Kjelsberg, PhD, Jeremiah Stamler, MD, Judith K. Ockene, PhD, Jeffrey A. Cutler, MD, and Jerome D. Cohen, MD, FOR THE MRFIT RESEARCH GROUP

137 **Physical Activity and Colon Cancer: A Public Health Perspective**
Martha L. Slattery, PhD, MPA, Sandra L. Edwards, MS, Khe-Ni Ma, MS, Gary D. Friedman, MD, and John D. Potter, MD, PhD

146 **Social Class and Race Disparities in Premature Stroke Mortality among Men in North Carolina**
Michele L. Casper, PhD, Elizabeth B. Barnett, PhD, Donna L. Armstrong, PhD, Wayne H. Giles, MD, MS, and Curtis J. Blanton, MS

REVIEW

154 **The Correction of Risk Estimates for Measurement Error**
Saghir Bashir, PhD, and S. W. Duffy, MSc

EDITORIAL

165 **The Correlates of Left-Handedness: Moderating Variables in the Epidemiology of Left-Handedness**
Diane F. Halpern, PhD, Mark G. Haviland, PhD

ORIGINAL REPORTS

167 **The Epidemiology of Left-Handedness in a Hospital Population**
Steven D. Stellman, PhD, Ernst L. Wynder, MD, David J. DeRose, MD, and Joshua E. Muscat, MPH

(continued)

172 **Evaluating the Relationships Among Maternal Reproductive History, Birth Characteristics, and Infant Leukemia: A Report from the Children's Cancer Group**
Julie A. Ross, PhD, John D. Potter, MD, PhD, Xiao-Ou Shu, MD, PhD, Gregory H. Reaman, MD, Beatrice Lampkin, MD, and Leslie L. Robison, PhD

180 **Intermittent Claudication in 8343 Men and 21-Year Specific Mortality Follow-up**
Steven J. Bowlin, DO, Jack H. Medalie, MD, Susan A. Flocke, MA, Stephen J. Zyzanski, PhD, Shlomit Yaari, BA, and Uri Goldbourt, PhD

188 **A Nested Approach to Evaluating Dose-Response and Trend**
John S. Witte, PhD, and Sander Greenland, DrPH

194 **The Effect of Nonresponse on Estimation of Relative Risk in a Case-Control Study**
Nancy Kreiger, PhD, and E. Diane Nishri, MS

200 **Predictors of Misclassification of Hispanic Ethnicity in a Population-Based Cancer Registry**
Karen C. Swallen, PhD, Dee W. West, PhD, Susan L. Stewart, PhD, Sally L. Glaser, PhD, and Pamela L. Horn-Ross, PhD

207 **Urban and Rural Traumatic Brain Injuries in Colorado**
Barbara Gabella, MSPH, Richard E. Hoffman, MD, MPH, William W. Marine, MD, MPH, and Lorann Stallones, PhD

213 **Major Depression and All-Cause Mortality among White Adults in the United States**
Deyi Zheng, MB, MS, Caroline A. Macera, PhD, Janet B. Croft, PhD, Wayne H. Giles, MD, MS, Dorothy Davis, BA, and William K. Scott, PhD

219 **Risk of Alzheimer's Disease Among Elderly Patients with Anemia: Population-Based Investigations in Olmsted County, Minnesota**
C. Mary Beard, RN, MPH, Emre Kokmen, MD, Peter C. O'Brien, PhD, Basilio J. Anía, MD, and L. Joseph Melton, III, MD

225 **Announcement**

EDITORIAL

227 **Changing Paradigms and Their Effect on American Indian and Alaska Native Health**
Everett R. Rhoades, MD, FACP

REVIEW

229 **An Epidemiologic Review of Dietary Intake Studies among American Indians and Alaska Natives: Implications for Heart Disease and Cancer Risk**
Ronny A. Bell, PhD, Elizabeth J. Mayer-Davis, PhD, Yvonne Jackson, PhD, RD, and Connie Dresser, RDPH, LN

ORIGINAL REPORT

241 **Epidemiology of Alcohol Use in a Group of Older American Indians**
Lynn P. Lowe, PhD, Cynthia R. Long, PhD, Robert B. Wallace, MD, and Thomas K. Welty, MD

EDITORIAL

249 **Can Econometrics Rescue Epidemiology?**
S. T. Mennemeyer, PhD

ORIGINAL REPORTS

251 **Econometric Approaches to Epidemiologic Data: Relating Endogeneity and Unobserved Heterogeneity to Confounding**
Namvar Zohoori, MD, PhD, and David A. Savitz, PhD

(continued)

258 **Does Endogeneity Matter? A Comparison of Empirical Analyses with and without Control for Endogeneity**
Namvar Zohoori, MD, PhD

267 **Epidemiologic Determinants of Endometriosis: A Hospital–Based Case-Control Study**
Lisa B. Signorello, ScM, Bernard L. Harlow, PhD, Daniel W. Cramer, MD, Donna Spiegelman, ScD, and Joseph A. Hill, MD

275 **Parenthood and Lipid and Lipoprotein Levels in Older Men**
Donna Kritz-Silverstein, PhD, Elizabeth Barrett-Connor, MD, and Nancylee J. Friedlander, PhD

280 **Green Tea Intake in Relation to Serum Lipid Levels in Middle-Aged Japanese Men and Women**
Yoshitaka Tsubono, MD, and Shoichiro Tsugane, MD

285 **Vitamin Intake: A Possible Determinant of Plasma Homocyst(e)ine among Middle-Aged Adults**
Tomoko Shimakawa, SCD, F. Javier Nieto, MD, PhD, M. Rene Malinow, MD, Lloyd E. Chambless, PhD, Pamela J. Schreiner, PhD, and Moyses Szklo, MD, DrPh

294 **Gastric Cancer in the European Union (1968-1992): Mortality Trends and Cohort Effect**
Nuria Aragonés, MD, Marina Pollán, MD, Inmaculada Rodero, MD, and Gonzalo López-Abente, PhD

304 **Recruitment of Minority Students to U.S. Epidemiology Degree Programs**
Diane Marie M. St. George, MA, Victor J. Schoenbach, PhD, Gladys H. Reynolds, PhD, John Nwangwu, DrPH, and Lucile Adams-Campbell, PhD, FOR THE AMERICAN COLLEGE OF EPIDEMIOLOGY COMMITTEE ON MINORITY AFFAIRS

311 **Obesity, Alcohol Consumption, Smoking, and Mortality**
Po-Huang Chyou, PhD, Cecil M. Burchfiel, PhD, Katsuhiko Yano, MD, Dan S. Sharp, MD, PhD, Beatriz L. Rodriguez, MD, PhD, J. David Curb, MD, and Abraham M. Y. Nomura, MD

BOOK REVIEW

318 **Epidemiological Research Methods**
P. Leaverton, PhD

SPECIAL ISSUE: INTERFACE BETWEEN MOLECULAR AND BEHAVIORAL EPIDEMIOLOGY

FOREWORD

319 **Molecular Epidemiology in the 1990s and the Interface between Epidemiology and Behavioral Science**
Dee W. West, PhD

EDITORIAL

320 **What are the Underlying Sources of Racial Differences in Health?**
Nancy Moss, PhD

ORIGINAL REPORTS

322 **Race and Health: Basic Questions, Emerging Directions**
David R. Williams, MD, PhD

334 **Improving Question Wording in Surveys of Culturally Diverse Populations**
Richard B. Warnecke, PhD, Timothy P. Johnson, PhD, Noel Chávez, PhD, Seymour Sudman, PhD, Diane P. O'Rourke, MA, Loretta Lacey, Dr Ph, and John Horm, MS

343 **Effects of Marital Status on the Risk of Mortality in Poor and Non-poor Neighborhoods**
Ken R. Smith, PhD, and Norman J. Waitzman, PhD

(continued)

350 **Heterocyclic Amines, Cytochrome P4501A2, and N-Acetyltransferase: Issues Involved in Incorporating Putative Genetic Susceptibility Markers into Epidemiological Studies**
Rashmi Sinha, PhD, and Neil Caporaso, MD

357 **Genetic Predictors of Common Disease: Apolipoprotein E Genotype as a Paradigm**
Gail Pairitz Jarvik, MD, PhD

363 **Ethical Issues of Genetic Testing and Their Implications in Epidemiologic Studies**
Melissa Bondy, PhD, and Carrie Mastromarino, BA

367 **Erratum**

ORIGINAL REPORTS

369 **Cancers of the Salivary Gland: Workplace Risks Among Women and Men**
G. Marie Swanson, PhD, and Patricia Brissette Burns, MPH

375 **Risk Factors, Lifetime Risk, and Age at Onset of Breast Cancer**
Gary E. Fraser, PhD, MPH, and David Shavlik, BS

383 **Relative Weight and Mortality in U.S. Blacks and Whites: Findings from Representative National Population Samples**
Ramón Durazo-Arvizu, PhD, Richard S. Cooper, MD, Amy Luke, PhD, T. Elaine Prewitt, DrPH, Youlian Liao, MD, and Daniel L. McGee, PhD

396 **Reliability of Proxy Reports of Parental Smoking by Elementary Schoolchildren**
Tracie Barnett, BSc, Jennifer O'Loughlin, PhD, Gilles Paradis, MD, MSc, FRCPC, and Lise Renaud, PhD

400 **Young Maternal Age and Preterm Labor**
Mary L. Hediger, PhD, Theresa O. Scholl, PhD, MPH, Joan I. Schall, PhD, and Paul M. Krueger, DO

407 **Development of the Multiple Metabolic Syndrome in the ARIC Cohort: Joint Contribution of Insulin, BMI and WHR**
Angela D. Liese, PhD, Elizabeth J. Mayer-Davis, PhD, Herman A. Tyroler, MD, C. E. Davis, PhD, Ulrich Keil, PhD, Bruce B. Duncan, MD, and Gerardo Heiss, MD

REVIEW

417 **Cross-Sectional and Longitudinal Changes in Total and High-Density-Lipoprotein Cholesterol Levels over a 20-Year Period in Elderly Men: The Honolulu Heart Program**
Robert D. Abbott, PhD, Dan S. Sharp, MD, PhD, Cecil M. Burchfiel, PhD, J. David Curb, MD, Beatriz L. Rodriguez, MD, PhD, Amy A. Hakim, MS, and Katsuhiko Yano, MD

BOOK REVIEW

425 **Health Behavior and Health Education: Theory, Research, and Practice**
Gina M. Wingood, ScD, MPH

LETTERS TO THE EDITOR

427 **Methylergonovine Maleate and Risk of Breast Cancer**
Lisa J. Herrinton, MD, and Gary D. Friedman, MD, MS

430 **Geographic Trends in Prostate Cancer Mortality: An Application of Spatial Smoothers and the Need for Adjustment**
Gary G. Schwartz, PhD, MPH

Erratum

(continued)

COMMENTARIES

431 **The Politics of Identity in Epidemiology**
John F. Acquavella, PhD

434 **Equal Treatment: Bestowed or Earned?**
Colin L. Soskolne, PhD

EDITORIAL

437 **Ibuprofen Use in Children: A Benefit or a Risk?**
C. Ineke Neutel, PhD, and Robert P. Pless, MD, MSc

ORIGINAL REPORTS

440 **Ibuprofen and Skin and Soft Tissue Superinfections in Children with Varicella**
Peter W. Choo, MD, DrPH, James G. Donahue, DVM, PhD, and Richard Platt, MD, MS

446 **Familial Aggregation and Covariation of Diseases in a Japanese Rural Community: Comparison of Stomach Cancer with Other Diseases**
Hideaki Toyoshima, MD, Senji Hayashi, MD, Shuji Hashimoto, PhD, Nao Seki, MD, Naohito Tanabe, MD, Kunio Miyanishi, PhD, Takaaki Kondo, MD, Makiko Fujiwara, MD, and Kunio Aoki, MD

452 **Reproducibility of the HERITAGE Family Study Intervention Protocol: Drift over Time**
E. Warwick Daw, PhD, Michaeal A. Province, PhD, Jacques Gagnon, PhD, Jean-Pierre Despres, PhD, Claude Bouchard, PhD, Arthur S. Leon, MD, James S. Skinner, PhD, Jack H. Wilmore, PhD, and D. C. Rao, PhD

463 **Performance of a Shortened Telephone-Administered Version of a Quantitative Food Frequency Questionnaire**
Donna M. Schaffer, RD, MPH, Ashley O. Coates, RD, MPH, Bette J. Caan, DrPH, Martha L. Slattery, RD, MPH, PhD, and John D. Potter, MD, PhD

472 **Evaluating Minority Recruitment into Clinical Studies: How Good Are the Data?**
Roberta B. Ness, MD, MPH, Deborah B. Nelson, MS, Shiriki K. Kumanyika, PhD, and Jeane Ann Grisso, MD, MSc

479 **Do Ethnic Differences in Dietary Cation Intake Explain Ethnic Differences in Hypertension Prevalence? Results from a Cross-Sectional Analysis**
Ursula E. Bauer, PhD, MPH, and Susan T. Mayne, PhD

486 **Blood Pressure and Heart Rate: No Evidence for a Positive Association with Prostate Cancer**
Gary D. Friedman, MD, MS

490 **Ischemic Heart Disease and Alcohol-Related Causes of Death: A View of the French Paradox**
Beverley Balkau, PhD, Francois Eschewege, MD, and Eveline Eschewege, MD

498 **Low-to Moderate Gestational Alcohol Use and Intrauterine Growth Retardation, Low Birthweight, and Preterm Delivery**
Lisbet S. Lundsberg, PhD, Michael B. Bracken, PhD, and Audrey F. Saftlas, PhD

509 **Male and Female Occupation in Relation to Miscarriage and Preterm Delivery in Central North Carolina**
David A. Savitz, PhD, Kate M. Brett, PhD, Nancy Dole, MSPH, and Chiu-Kit J. Tse, MSPH

517 **The Potential for Simpson's Paradox in Drug Utilization Studies**
C. Ineke Neutel, PhD

522 **Announcement**

(continued)

EXECUTIVE SUMMARY

S1 **Community Trials for Cardiopulmonary Health: Directions for Public Health Practice, Policy, and Research**
Thomas A. Pearson, MD, PhD, MPH, and Elaine J. Stone, PhD, MPH

ORIGINAL REPORTS

S4 **Social Origins of Cardiopulmonary Disease: The Need for Population-Focussed Prevention Studies**
Lester Breslow, MD, MPH

S8 **Epidemiological Basis of a Community Strategy for the Prevention of Cardiopulmonary Diseases**
Henry Blackburn, MD

S14 **School-Based Cardiovascular Disease Prevention Studies: Review and Synthesis**
Ken Resnicow, PhD, and Thomas N. Robinson, MD, MPH

S32 **Synthesis of Lessons Learned from Cardiopulmonary Preventive Interventions in Healthcare Practice Settings**
Judith K. Ockene, PhD, Patrick E. McBride, MD, MPH, James F. Sallis, PhD, Debra P. Bonollo, BA, and Ira S. Ockene, MD

S46 **Synthesis of Findings and Issues from Religious-Based Cardiovascular Disease Prevention Trials**
Thomas M. Lasater, PhD, Diane M. Becker, ScD, MPH, Martha N. Hill, PhD, and Kim M. Gans, PhD, MPH

S54 **Synthesis of Findings and Issues from Community Prevention Trials**
Caroline Schooler, PhD, John W. Farquhar, MD, Stephen P. Fortmann, MD, and June A. Flora, PhD

S69 **Design and Analysis of Group-Randomized Trials: A Review of Recent Developments**
David M. Murray, PhD

S78 **Selecting End Point Variables for a Community Intervention Trial**
Henry A. Feldman, PhD

S89 **Theory as Mediating Variables: Why Aren't Community Interventions Working as Desired?**
Tom Baranowski, PhD, Lillian S. Lin, PhD, David W. Wetter, PhD, Ken Resnicow, PhD, and Marsha Davis Hearn, PhD

S96 **Accelerating Cardiovascular Risk Factor Change in Ethnic Minority and Low Socioeconomic Groups**
Marilyn A. Winkleby, PhD

S104 **Toward a Framework for Intervention Channels: Reach, Involvement, and Impact**
June A. Flora, PhD, Melissa N. Saphir, MA, Caroline Schooler, PhD, and Rajiv N. Rimal, PhD

S113 **Community-Based Prevention Trials: Challenges and Directions for Public Health Practice, Policy and Research**
Elaine J. Stone, PhD, MPH, Thomas A. Pearson, MD, PhD, MPH, Stephen P. Fortmann, MD, and John B. McKinlay, PhD

S121 **Acknowledgment**

FEDERAL SCENE

523 **Cardiovascular Disease in the NHANES III**
Clemencia M. Vargas, DDS, PhD, Vicki L. Burt, ScM, RN, and Richard F. Gillum, MD

(continued)

COMMENTARY

526 **Epidemiology and the Health Care Revolution**
Alfred Sommer, MD, MHS

EDITORIAL

530 **Occupational Epidemiology in China Comes of Age**
Tee L. Guidotti, MD, MPH

ORIGINAL REPORTS

533 **Risk Factors and Early Detection of Lung Cancer in a Cohort of Chinese Tin Miners**
You-Lin Qiao, MD, PhD, Philip R. Taylor, MD, ScD, Shu-Xiang Yao, MD, Yener S. Erozan, MD, Xue-Chang Luo, MD, Michael J. Barrett, BA, Qing-Yuan Yan, MD, Carol A. Giffen, DVM, Shao-Qiang Huang, MD, Michelle M. Maher, RN, Michele R. Forman, PhD, and Melvyn S. Tockman, MD, PhD

542 **DSM-IV Alcohol Dependence and Drinking in the U.S. Population: A Risk Analysis**
Raul Caetano, MD, PhD, Tammy Tam, PhD, Tom Greenfield, PhD, Cheryl Cherpitel, DrPh, and Lorraine Midanik, PhD

550 **Self-Esteem and Adiposity in Black and White Girls: The NHLBI Growth and Health Study**
Sue Y. S. Kimm, MD, MPH, Bruce A. Barton, PhD, Kiros Berhane, PhD, James W. Ross, MS, Gerald H. Payne, MD, MPH, and George B. Schreiber, DSc

561 **Associations of Oral Contraceptive Use with Serum Lipids and Lipoproteins in Young Women: The Bogalusa Heart Study**
Kurt J. Greenlund, PhD, Larry S. Webber, PhD, Sathanur Srinivasan, Wendy Wattigney, MS, Carolyn Johnson, PhD, and Gerald S. Berenson, MD

568 **Risk of Suicide Attempts after Benzodiazepine and/or Antidepressant Use**
C. Ineke Neutel, PhD, FACE, and Scott B. Patten, MD, PhD

575 **Acknowledgment to 1997 Reviewers**

576 **Author Index to Volume 7**

582 **Subject Index to Volume 7**

Volume 7 Contents